

На основание § 9, ал. 3, във връзка с ал. 1 и 2 от Закона за възстановяване и реструктуриране на кредитни институции и инвестиционни посредници, чл. 80б и § 2 от допълнителните разпоредби на Закона за кредитните институции

**УТВЪРЖДАВАМ:**

**ДИМИТЪР КОСТОВ**  
**ПОДУПРАВИТЕЛ**



### *2016 Stress Test Guidelines*

28 April 2016

The stress test exercise is part of the comprehensive assessment of the Bulgarian banking sector and is conducted on the basis of Article 11 “Supervision of banking activity” of the Law on Credit Institutions. The 2016 stress test is an analytical supervisory assessment, which aim is to determine the capacity of banks’ capital to absorb unexpected losses stemming from prolonged adverse shocks. The stress test simulation takes into account the findings from the asset quality review (AQR). The guidelines are based on the key assumptions in and the level of conservatism of the 2016 EBA EU-wide stress test methodology, adapted to better reflect the characteristics of financial intermediation in Bulgaria and the Bulgarian economy.

#### Key aspects

- I. The stress test horizon encompasses the three year period between 2016 and 2018. The scenarios are to be applied to the end of each year.
- II. The stress test incorporates a common baseline and an adverse macroeconomic scenario, which are to be applied by all banks. (Appendix: Baseline and adverse macroeconomic scenario of the Bulgarian National Bank for the 2016 stress testing exercise).
- III. The stress test is based on the assumption of a “static balance sheet” – no credit growth is assumed for the stress test horizon; banks maintain the same business model, in terms of geographical mix and product range, currency denomination, and maturity structure of assets and liabilities. The increase of non-working exposures decreases the amount of working exposures, holding the total amount of gross loans constant. Maturing securities are replaced by identical instruments in terms of currency, remaining time to maturity, issuer and balance sheet classification.

- IV. The exercise is carried out on the basis of 2015 year-end figures. Exposures as at 31 December 2015 shall be used as starting values. Where relevant, the AQR findings shall be incorporated.
- V. The impact of the stress test on banks' capital adequacy shall be reported in terms of Common Equity Tier 1 capital ratio (CET1). The following hurdle rates shall be applied as a minimum across all participating banks:
- i. The capital hurdle rate is set at 8% (4.5% regulatory minimum + 2.5% capital conservation buffer + 1% conservative add-on) Common Equity Tier 1 ratio for the baseline scenario;
  - ii. The capital hurdle rate is set at 5.5% (4.5% regulatory minimum + 1% conservative add-on) Common Equity Tier 1 ratio for the adverse scenario.

In addition, the Tier 1 capital and Total capital adequacy (amounts and ratios) after stress are to be reported. Risk exposures, capital adequacy and the size of the capital surplus/shortage after the shock are to be computed on the basis of the requirements of Regulation (EU) No 575/2013, BNB Ordinance No 7 on organization and risk management of banks and BNB Ordinance No 8 on Banks' Capital Buffers.

- VI. The exercise is run at the individual level.
- VII. For the purposes of projecting income for the years 2016, 2017 and 2018, banks are required to follow international financial reporting standards and use the FINREP format as at 31 December 2015, unless the guidelines envisage otherwise.
- VIII. The stress test exercise does not take into account changes in tax, financial reporting and regulatory policies post end of 2015. For this reason, the envisaged coming into effect in early 2018 of the new Standard IFRS 9, changes in the size of capital buffers, etc., are excluded from the scope of this exercise. The regulatory amendments preannounced in a legal act are taken into account.
- IX. No restructuring or sales of assets, one-off effects in income and expenses, and intra-group transfers are allowed.
- X. Government securities which have been blocked as a guarantee for the repayment of the budgetary funds placed with the banking system are excluded from the scope of the exercise.
- XI. Banks are required to stress test the following set of risks:

	<b>Baseline scenario</b>	<b>Adverse scenario</b>
<b>Credit risk</b>	X	X
<b>Market risks</b>		X
<b>Interest rate risk</b>		X

The focus of the stress test exercise is on credit risk due to its predominance given the degree of complexity of financial intermediation in Bulgaria.

- XII. The stress-test adopts a constrained bottom-up approach. In addition to the guidelines, banks and their AQR service providers will be supplied with working templates for the purposes of facilitation and standardization of the stress test process.
- XIII. Banks are required to project the negative impact of the main risks and the additional constraints stemming from the static balance sheet assumption. The simulation results will be subject to quality assurance by the BNB and Deloitte, in the position of a consultant to the BNB.
- XIV. The stress test process is divided in two stages. In the first stage banks are required to apply stress test hypotheses to 2015 year-end figures. The results from the AQR will be incorporated in the second stage, and the entry data is to be confirmed by the AQR service providers.

Banks are required to fill in and return to the BNB the following templates:

- Appendix 6 - Calculator Credit risk - Other;
  - Appendix 7 - Calculator Market risk – HfT;
  - Appendix 8 - Calculator Market risk – Haircuts;
  - Appendix 9 - Calculator Other income;
  - Appendix 10 - Reporting tables and simulation results;
  - Appendix 11 - Market risk - optional template for main assumptions;
  - Explanatory notes containing own assumptions used for the projections of credit, market, interest rate risk, and other.
- XV. Electronic copies of the documentation and reporting templates should be submitted to the BNB within the deadlines specified in p. XVI (cob). Appendix 10 is to be signed using electronic signature. A hard copy of the worksheet with tab name “Capital” in Appendix 10 – “Reporting tables and simulation results” is to be signed by the persons who manage and represent the bank and sent to the BNB. The worksheet “AQR” is to be signed by both the persons who manage and represent the bank and the AQR service providers as well. More detailed information is provided in Appendix 12 - Procedures for exchange of information and correspondence.
- XVI. Banks shall follow the above procedures for sending back the filled in documentation and appendices to the BNB by the specified deadlines:
- By 31 May 2016 results from the first stage of the stress test;
  - By 29 June 2016 results from the second stage (incorporating the results from the AQR).
- XVII. Additional details as regards the announcement of stress test results will be provided to banks. If deemed necessary, measures for the strengthening of the banks’ capital position would be discussed as part of the preparatory phase for the stress test results announcement.

## Main risks, covered by the exercise

### CREDIT RISK

Negative shocks are applied to loans and receivables and investments, held-to-maturity (HTM).

#### *Loans and advances*

##### I. Main definitions and assumptions

1. Subject to credit shock are gross value (before impairment) of loans and advances. The focus of the stress test is on loans to non-financial corporations and households (residential mortgage loans and other loans to households) as they form the largest part of the credit portfolio.
2. The projection of impairments includes the following main steps: a) estimating starting values of the risk parameters – probability of default (PD) and loss given default (LGD); b) estimating the impact of the scenarios on the risk parameters; and c) computing impairment costs.
3. The definitions of credit risk are based on the data on performing and non-performing exposures (FinRep reporting template, sheet F 18.00). For the purposes of the stress test exercise, loans and advances are divided as follows:
  - 3.1. **Working loans** – includes performing loans and advances (col. 020, F18.00) and loans unlikely to pay that are not past-due or past-due < = 90 days (col. 070, F18.00);
  - 3.2. **Non-working loans** – includes non-performing exposures, past due > 90 days (col. 080, 090 and 100, F18.00).
4. **Non-working loan flow** measures the amount of exposures that defaulted during a given year out of those that were classified as “working loans” at the start of the period. **The probability of default at a point in time (pit)** is calculated as the non-working loan flow over gross working loans exposure at the beginning of the observation period. **The probability of default** for 2015 is calculated as non-working loan flow (in 2015) over working loans (as at end 2014) for each loan category.
5. **The loss given default** at a point in time (pit) is calculated as the gross impairment loss over the **non-working loan flow**. **The loss given default** for 2015 is calculated as the accumulated impairments on the non-working loan flow is divided by the size of the **non-working loan flow** for each loan category.
6. The starting point-in-time risk parameters are defined as follows:
  - 6.1. **PD\_AQR\_pit** – probability of default for 2015 (point in time), which is computed considering the results from the AQR. The projection of the parameter is applied to the size of the working loans.
  - 6.2. **LGD\_new\_pit** – loss given default for 2015 (point in time), based on the bank’s individual historical loss level. The projection of the parameter is applied to the flow of non-working loans.
  - 6.3. **LGD\_old\_AQR** – loss given default through the cycle, which takes into consideration the results from the AQR. The parameter is applied to the starting stock of non-working loans.

## II. Determining the impact on the profit and loss (P&L) statement

7. Loans are categorized as working and non-working. Over the stress test horizon non-working loan flows are to be allocated to the stock of non-working loans, thereby reducing the stock of working loans.
8. Banks are required to use starting amounts for exposures, broken down as follows: loans to non-financial corporations, residential mortgage loans and other loans to households. The gross amount of loans and advances and the corresponding impairments are allocated to the respective category – working or non-working loans. The starting amount of the gross loans and advances, and the accumulated impairments on the latter two categories (working and non-working), are taken as at 31 December 2015. The figures are adjusted consequently to reflect the outcome of the AQR.
9. For the purposes of the equal treatment of credit risk, banks are required to use the calculators, supplied by the BNB, which incorporate an algorithm based on the evolution of the macroeconomic variables in the baseline and the adverse scenarios. Banks should fill in the starting values of PD\_AQR\_pit and LGD\_new\_pit to generate the projected risk parameters for the stress test horizon. Additional projection of the LGD\_old\_AQR is not required.
10. The estimation of the impact of a hypothetical credit shock is performed as follows (see Appendix 5 “Credit risk – Primer”): The formulae shown below are used to calculate the expected loss on the corresponding exposure according to its classification:
  - **Losses on working loans** = PD\_AQR\_pit x LGD\_new\_pit x working loans
  - **Additional provisions for non-working loans** = 1 x LGD\_old\_AQR x Non-working loans
- 10.1. **Non-working loans flow<sub>t</sub>** = Working loans<sub>t-1</sub> x PD\_AQR\_pit<sub>t</sub>
- 10.2. **The projected impairments** for the respective year are adjusted for the accumulated, as at the starting date, impairments on working loans. For this purpose banks apply the appropriate PD\_AQR\_pit<sub>t</sub> – i.e. the corresponding impairment will migrate to the extent to which the credit migrates.
- 10.3. **Projected loss from a credit shock** = (Newly formed non-working loans flow x LGD\_new\_pit<sub>t</sub>) – impairment migration
- 10.4. The amount of the total exposure remains constant for the stress test horizon. The increase of non-working exposures reduces the amount of working exposures.
- 10.5. Additional provisioning on existing non-working loans is performed only once, in 2016. For this purpose, the risk parameter LGD\_old\_AQR is applied to the non-working loans, adjusted to reflect the outcome of the AQR. The aim is to calculate the amount of additional provisioning once (if necessary) so that the level of provisions corresponds to the risk parameter LGD\_old\_AQR.
- 10.6. The hypothetical credit losses and the additional provisioning expense are aggregated for all exposure classes.
- 10.7. The total amount of projected credit losses is recognized in the profit and loss statement as “*Impairment losses on financial assets not measured at fair value*”

*through profit and loss*” – row loans and receivables (r. 490, F 02.00), o.w. loans and advances.

11. Banks could apply their own assumptions to exposures to the general government, credit institutions and other financial institutions, based on their experience with monitoring and management of the relevant credit risk.
12. Banks are required to provide detailed description of the methods applied in the credit risk section. It is recommended that the justification notes adhere to the terminology used in the BNB stress test guidelines. If deemed necessary, the BNB might request additional information.

### III. Constraints

13. The starting value of the risk parameter LGD\_new\_pit cannot be lower than 50% x LGD\_old\_AQR.
14. The size of additional provisions on non-working loans cannot be lower than zero.
15. Negative impairments for any given exposure are not permitted.
16. Following the submission of results, the starting value of LGD\_new\_pit of individual banks will be subjected to a cross-sectional comparison as well as a comparison to individual historical values. As a result banks may be asked to revise the starting value of LGD\_new\_pit.

### *Debt securities, designated as loans and receivables and held to maturity investments (HTM)*

17. As regards debt securities, designated as loans and receivables and HTM investments, other than those to the general government, banks are required to use the same approach to calculate the expected loss. The risk parameters' (PD\_AQR\_pit x LGD\_new\_pit) values in the baseline and adverse scenario should be equal to the values of the analogous risk parameters for loans to non-financial corporations.
18. As regards exposures to the general government, designated on the balance sheet as debt securities (in the loans and receivables section) and HTM investments, a shock is applied only in the adverse scenario.
19. For practical convenience, banks are supplied in the Appendix 6“Credit risk - other”, which provides a means to calculate the hypothetical amount of losses based on pre-specified loss rates, assigned to each country. The estimated loss is for the stress test horizon and is distributed equally among each of the three years of the hypothetical exercise.
20. If the instrument is recognized on the balance sheet at a premium (i.e. amortized cost is above par), impairments are calculated as the expected losses for the three year period plus the premium (the difference between the amortized cost and par value). If securities are booked at a discount (i.e. amortized cost is below par), the impairment loss is calculated as the expected losses for the three year period minus the discount (the difference between amortized cost and par value). For example, if the securities are booked at 95% of their nominal value and the three year loss is equal to 10%, the bank will recognize 5% to impairment losses.

21. The total amount of credit losses on loans and receivables and HTM investments are recognized in the profit and loss statement as “Impairment on financial assets not measured at fair value through profit and loss” – row loans and receivables (row 490, F 02.00), o.w. debt securities, and HTM investments (row 500, F 02.00).

## MARKET RISK

22. Subject to market risk are instruments held-for-trading (HFT), designated at fair value through profit or loss instruments (FVO) and securities available for sale (AFS). For the former two accounting categories (HFT and FVO), the impact from revaluation is recognized on the P&L statement – rows *Net profit or (-) loss from financial assets or liabilities held-for-trading* (row 280, F 02.00) and *Net profit or (-) loss from financial assets or liabilities designated at fair value through profit or loss* (row 290, F 02.00). The revaluation of AFS exposures affects regulatory capital through other comprehensive income - *Net unrealized profit or (-) loss from financial assets or liabilities available for sale*. Positions are divided in two categories: exposures to the general government and exposures, other than those to the general government.
23. The reference date for applying the shocks from the market risk is 31 December 2015.
24. The shock from the market risk in the adverse scenario is realized fully in 2016.
25. The treatment of unrealized gains and losses on the AFS portfolio, for the purposes of calculating capital ratios, should be consistent with the requirements of Ordinance 7 on the Organization and risk management of banks.

### Exposures, other than those to the general government

#### *Held-for-trading (HFT) instruments*

26. The projection of net trading income (NTI) from HFT exposures is calculated on the basis of NTI for the past five years. The data necessary to perform this calculation can be found on row *Net profit or (-) loss from financial assets or liabilities held-for-trading* on the P&L statement.
27. For practical convenience, provided is a template (“Market risk - HFT”), using the formulae below.
28. The starting value of the NTI is the minimum of the average NTI for the past three years, the average for the past five years, and the higher of the average NTI for the past two years and zero.

$$NTI_{\text{starting value}} = \text{Min} \{ \text{Average}_{(NTI)} 2013-2015, \text{Average}_{(NTI)} 2011-2015, \text{Max}(0, \text{Average}_{(NTI)} 2014-2015) \}$$

29. NTI projections, in the baseline and adverse scenarios, are calculated as shown below:

$$NTI_{2016-2018 \text{ (baseline)}} = NTI_{\text{starting value}};$$

$$NTI_{2016 \text{ (adverse)}} = NTI_{\text{starting value}} * \beta - 2 * \text{Max} \{ \text{Standard Deviation}_{(NTI)2013-2015}, \text{Standard Deviation}_{(NTI)2011-2015} \};$$

$$NTI_{2017-2018 \text{ (adverse)}} = NTI_{\text{starting value}} * \beta.$$

Where  $\beta = 0.75$ , if  $NTI_{\text{starting value}} > 0$ ,  $\beta = 1$  otherwise.

30. The impact is recognized on the P&L statement – row *Net profit or (-) loss from financial assets or liabilities held-for-trading (row 280, F 02.00)*.

***Instruments, designated at fair value through profit or loss (FVO) and available for sale (AFS) instruments***

31. In the baseline scenario the balance sheet values of instruments, designated at fair value through profit or loss (FVO) or as available for sale (AFS) remain unchanged from the values as at end of 2015 – i.e. the effect from revaluation is effectively zero.

32. Banks shall revalue exposures as a result of the market risk shock under the adverse macroeconomic scenario:

- As regards resident exposures, banks are requested to base their assumptions on market developments on the adverse macroeconomic scenario prepared by the BNB;
- As regards exposures to external markets, banks are requested to base their assumptions on market developments on adverse scenario prepared by the European Systemic Risk Board (ESRB)<sup>1</sup> for the 2016 EU-wide stress test exercise. Banks could use the common set of stressed market parameters, calibrated for the purposes of the EU-wide exercise<sup>2</sup>.
- The scope of the stress test exercise excludes capital instruments related to banks' participation in institutions ensuring the infrastructure of financial intermediation in Bulgaria (e.g. Central Depository, The Cash Service Company, Borica – Bankservice, etc.)

33. FVO and AFS exposures are to be distributed to the categories below and the impact from revaluation of positions from portfolios is to be allocated to each one accordingly:

- Investment grade debt securities issued by banks and other financial corporations
- Non-investment grade debt securities issued by banks and other financial corporations
- Investment grade debt securities issued by non-financial corporations
- Non-investment grade debt securities issued by non-financial corporations
- Other debt securities (less liquid/illiquid or without an assigned credit rating)
- Equity instruments (including ETFs)

34. The overall impact of the market risk shocks should be fully recognised in the first year of the stress test horizon (i.e. in 2016). No shocks or recovery is foreseen in 2017 and 2018– i.e. the *Net profit or (-) loss from financial assets or liabilities from designated at fair value through profit or loss (FVO) instruments* and the *Net unrealized profit or (-) loss*

<sup>1</sup> <http://www.eba.europa.eu/documents/10180/1383302/2016+EU-wide+stress+test-Adverse+macro-financial+scenario.pdf>

<sup>2</sup> <http://www.eba.europa.eu/documents/10180/1383302/2016+EU-wide+stress+test-Market+risk+scenario.pdf>



*from financial assets or liabilities available for sale (AFS) are equal to zero, and the balance sheet values remain unchanged from the exposure values in 2016.*

35. The impact from revaluation of FVO exposures is recognized on the P&L statement- row *Net profit or (-) loss from financial assets or liabilities from designated at fair value through profit or loss (FVO) investments (row 290, F 02.00), o.w. exposures, other than those to the general government.*
36. The impact from revaluation of AFS exposures is recognized in other comprehensive income on the balance sheet- row *Net unrealized profit or (-) loss from financial assets or liabilities available for sale (AFS) (row 280, F 02.00), o.w. exposures, other than those to the general government recognized as regulatory capital items in accordance with the requirements of Ordinance No 7 of the BNB.*
37. Banks are required to provide detailed quantitative and qualitative justification on the revaluation positions according to the geographical exposure and the maturity of the instruments. The banks with sizable and diversified portfolio are requested to summarize their assumptions and notes in Template “Market risk - optional template for main assumptions” according to issuer residence and maturity. If necessary, the BNB might request additional information.

#### **Exposures to the general government**

38. In the baseline scenario the balance sheet values of FVO and AFS exposures remain unchanged relative to their values at the end of 2015 – i.e. the effect of revaluation is zero.
39. A market risk shock is assumed only under the adverse scenario.
40. Banks shall apply to direct exposures to the general government in the HFT, the AFS and the FVO portfolios the haircuts (by issuer and maturity) provided in calculator “Market risk – Haircuts” (Appendix 8).
41. The impact from the market risk shocks is fully recognized in the year 2016. No shock or subsequent recovery is foreseen for 2017 and 2018 – i.e. the *Net profit or (-) loss from financial assets or liabilities from designated at fair value through profit or loss (FVO)* and the *Net unrealized profit or (-) loss from financial assets or liabilities available for sale (AFS)* is equal to zero, and their balance sheet values should remain unchanged after 2016.
42. The haircuts on sovereign FVO exposures, calculated using the prescribed haircuts are to be recorded as losses in the P&L statement – row *Net profit or (-) loss from financial assets or liabilities from designated at fair value through profit or loss (FVO), o.w. exposures to the general government.*
43. The haircuts on sovereign AFS exposures, calculated using the prescribed haircuts are to be recorded as unrealized losses in the OCI – row *Net unrealized profit or (-) loss from financial assets or liabilities available for sale (AFS), o.w. exposures to the general government recognized as regulatory capital items in accordance with the requirements of Ordinance No 7 of the BNB.*
44. **No additional calculations are to be performed for general government HFT exposures, i.e. the indicative results in Appendix 8 for these exposures are for information purposes only.**

## INTEREST RATE RISK

### I. Basic assumptions and mechanism

45. The interest rate risk applies only under the adverse scenario and is related to increase of the funding costs.
46. A leading assumption is that the increase of the cost of banks' attracted funds is related to the higher government funding costs and the change of the reference interest rate<sup>3</sup>. The funding costs peak in 2017 and gradually decline by the end of the period. The relative increases of Bulgarian government securities' yields relative to end of 2015 are 64 b.p., 83 b.p. and 69 b.p. for 2016, 2017 and 2018 respectively. The increases of the 3M Euribor relative to the same reference date are 33 b.p., 23 b.p. and 6 b.p. respectively.
47. **As a result of the shock, the cost of banks' attracted funds increases by 97 b.p. in 2016, 106 b.p. in 2017 and 75 b.p. in 2018.** The shocks occur at the beginning of the respective year.
48. The net interest income is affected by the changes, as the interest expenses shall be recalculated in accordance with the hypothetical higher cost of interest-sensitive liabilities, while the transfer of the higher funding costs on interest-sensitive assets shall be limited. Interest-sensitive exposures are those maturing during the period 01.01.2016 - 31.12.2018 and replaced with instruments with the same maturity and those with floating interest rate.
49. The maturity structure of interest-sensitive assets and interest-sensitive liabilities shall remain unchanged for the scope of the simulation.
50. Banks apply their interest rate policy in force as of 31.12.2015 for non-interest-sensitive exposures.
51. Banks employ the following approach to determine the cost of attracted resources, while taking into account that the shock on the cost of attracted funds with floating interest rate shall be applied at the beginning of the year and the shock on maturing exposures at the time of maturity:
  - 51.1. The wholesale funding cost increases by 100% of the size of the shocks described in p.47. The scope of wholesale funding encompasses secured/unsecured interbank market funds (including repo-operations), parent funding, issued debt securities (including subordinated term debt), covered bonds, other market funding and funding from other financial corporations.
  - 51.2. The increase in the cost of funds, attracted from the general government, is at least 20% of the shocks in p.47 for sight deposits and 50% of the shocks in p.47 for term deposits.
  - 51.3. Banks determine the increase of the costs on funds attracted from non-financial corporations and households, while taking into account the interaction of the hypotheses in the adverse macroeconomic scenario (GDP, unemployment, inflation,

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<sup>3</sup> For Bulgaria the changes of the yields on government securities and the reference interest rate (3M Euribor) are in accordance with the adverse macroeconomic scenario of the European Systemic Risk Board (ESRB), prepared for the EBA 2016 EU-wide stress test.

etc.) with the bank-specific factors such as market position, credit risk, structure of the deposit base, etc. The following **minimum requirements** shall be applied: for the **non-financial corporations' funds the minimum increase for sight deposits is 20% of shocks in p.47 and for term deposits - 50% of shocks in p.47. For households - a minimum of 10% of shocks in p.47 for sight deposits and a minimum of 50% of shocks in p.47 shall be applied to term deposits.**

52. The transfer of the higher funding costs to the interest rates on loans to non-financial corporations and households (loans with floating interest rates and loans maturing between 01.01.2016 - 31.12.2018) **cannot be higher than 15% of the increase of the weighted-average cost of funding (WACF). The maximum increase of the cost of loans to the financial sector (credit institutions and other financial corporations) and the general government can be up to 50% and 100% of the WACF respectively.**
53. The transfer of funding costs on the interest rates on loans takes place at the beginning of the respective year. The higher interest rate on floating interest rate loans applies since the beginning of the respective year and for loans maturing during the year higher interest rate applies since the time of maturity.
54. The revenue from fixed-income financial instruments follows the main assumptions of yield to maturity dynamics.
55. The effects of interest rate risk are accounted in the P&L – rows interest income (row 010, F 02.00) and interest expenses (row 090, F 02.00).
56. Banks shall present a detailed description of assumptions used to determine entry-level interest rates, the respective projection of their effect on the assets and liabilities and resulting interest income and expenses. When necessary, banks could be required to present additional clarifying comments.

## II. Constraints

57. The net interest income cannot increase above its 2015 level in both the baseline and the adverse scenario.
58. The amount of interest expenses cannot be lower than its level in 2015 under the adverse scenario.
59. Under the adverse scenario interest income on starting stock of non-working loans and on the flow of non-working loans should not be recognized, which contrasts with the baseline where projections are in line with accounting practices under IFRS and FinRep. The flow of non-working loans occurs at the beginning of the year for simplification.

## **RISK AGGREGATION**

60. **All shocks described above shall be implemented in the simulation simultaneously. The shocks' consequent effects shall be applied when creating the statement of profit or loss (P&L) and computing the bank's capital position for the period 2016 – 2018.**

## Non-interest income and expense, risk exposures and capital

### Non-interest income and expense

61. Banks use the calculator “Other income” to project the dividend income (row 160, F 02.00) and the net fee and commission income (row 200 and 210, F 02.00) in the P&L. The calculator is based on the following assumptions:

61.1 Under the baseline scenario the projection values for each year shall be kept constant at their 2015 value.

61.2 Under the adverse scenario the lower of the ratio to total assets in 2015 and the average of two lowest ratios to total assets that occurred over the last 5 years shall be used.

62. The net other operating income (rows 340 and 350, F 02.00) shall remain constant at its 2015 level, except when affected by one-off effects. Net other operating income is to be adjusted for one-off effects observed in 2015 or in previous years. For this purpose banks shall provide information for the past three years on other operating income and expenses and for those components related to one-off items. Following submission of results banks will undergo horizontal comparison and assessment of individual historical values. In case inappropriate values are discovered BNB could require a revision of the projections.

The net operating income projections for the period 2016 – 2018 shall include the expenses related to banks’ annual contributions to the Bank Deposit Insurance Fund (BDIF) in accordance the Law on Bank Deposit Guarantee (LBDG), banks’ annual contributions to the Bank Resolution Fund (BRF) in accordance the Law on Recovery and Resolution of Credit Institutions and Investment Firms (LRRCIIF) and the annual fee in accordance with art 1, (2) and (3) of the LBDG for covering administrative expenses of the BDIF and the BRF, in accordance with Ordinance No. 29 of the BNB from 12 December 2015 for determining the procedure for financing the administrative costs of the Deposits Guarantee Fund.

63. The administrative expenses (row 360, F 02.00), depreciation (row 390, F 02.00) and provisions (row 430, F 02.00) shall remain unchanged and equal to their respective values in 2015 for the whole simulation period. In case banks’ administrative expenses include contributions to the BDIF, BRF and the annual fees, these are excluded and recognized following the approach, described in art. 63.

64. Impairment of non-financial assets (row 520, F 02.00) corresponds to the developments in the macroeconomic scenario. More specifically, residential real estate impairment encompasses the development of residential real estate prices.

65. The tax expense (row 620, F 02.00) is in accordance with the tax legal base in force in the end of 2015.

66. No effects are envisaged for the remaining parts of the P&L, e.g. they get a value equal to 0 for the simulation.

- Expenses on share capital repayable on demand (row 150, F 02.00);

- Net gains or (-) losses on derecognition of financial assets and liabilities not measured at fair value through profit or loss (row 220, F 02.00);
- Net gains or (-) losses from hedge accounting (row 300, F 02.00);
- Net exchange rate differences [gain or (-) loss] (row 310, F 02.00);
- Net gains or (-) losses on derecognition of non financial assets (row 330, F 02.00);
- Impairment or (-) reversal of impairment of investments in subsidiaries, joint ventures and associates (row 510, F 02.00);
- Negative goodwill recognised in profit or loss (row 580, F 02.00);
- Share of the profit or (-) loss of investments in subsidiaries, joint ventures and associates (row 580, F 02.00);
- Profit or (-) loss from non-current assets and disposal groups classified as held for sale not qualifying as discontinued operations (row 600, F 02.00).

67. Dividend payments are projected in accordance with the bank's dividend policy during the last 3 years. In case the bank has experienced a loss, dividend distribution is not envisaged. Banks' dividend projections shall be bound by the limits applicable whenever capital buffers are exhausted.

#### Risk Exposures

68. The **starting value** of the total risk exposures and its sub-components shall be adjusted for the effect of the AQR.

69. The risk-weighted exposure amounts for credit, counterparty credit and dilution risks and free delivery (row 040, C 02.00) shall take into account the level of provisioning as a result of the credit shocks under the baseline and the adverse scenario. Projections of risk exposures, collateralized with residential real estate, shall incorporate developments of residential real estate prices corresponding to the macroeconomic scenarios. To allow for comparability across the stress test horizon changes envisaged in art. 114 of Regulation 575/2013 (coming in effect from the beginning of 2018) are not applied for the horizon of the stress test.

70. The total exposure amount for position, foreign exchange and commodities risks (row 520, C 02.00) shall remain at its starting level. To allow for comparability across the stress test horizon changes envisaged in art. 354 of Regulation 575/2013 (coming in effect from the beginning of 2018) are not applied for the horizon of the stress test.

71. The total exposure amount for operational risks (row 590, C 02.00) shall remain at its starting level.

72. The total exposure amount for credit valuation adjustment (row 640, C 02.00) shall remain at its starting level.

73. A zero level applies to the total risk exposure amount for settlement/delivery (row 490, C 02.00), the additional risk exposure amount due to fixed overheads (row 630, C 02.00),

the total risk exposure amount related to large exposures in the trading book (row 680, C 02.00) and other risk exposures (row 690, C 02.00).

Capital

74. When conducting the stress test exercise banks shall use the following starting-levels as at 31.12.2015, while accounting for the AQR: common equity tier 1 capital (row 010, C 01.00), tier 1 capital (row 015, C 01.00), own funds (row 010, C 01.00). The capital ratios are calculated accordingly (C 03.00).
75. Under the adverse scenario capital position projections **cannot exceed their starting levels.**
76. Simulated shocks related to credit, market and interest rate risk are accounted in the P&L. The AfS haircuts are accounted in the capital under unrealized gains or (-) losses from financial assets and liabilities available for sale.
77. All transitory and final provisions of BNB Ordinance No 7 on Organisation and Risk Management of Banks shall be accounted for when calculating the capital.
78. The requirements for the capital buffers are those in force as of 31.12.2015 in accordance with the BNB Ordinance No. 8 on Banks' Capital Buffers.